DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-009315 Address: 333 Burma Road **Date Inspected:** 18-Sep-2009

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: Du Zhi Qun, Li Ming, Chen Ying &WI Present: Yes No

Inspected CWI report: Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A

Delayed / Cancelled:

34-0006 Tower **Bridge No: Component:**

Summary of Items Observed:

On this day CALTRANS OSM Quality Assurance (QA) Inspector Umesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

Bay 10 North Tower lift 3 diagonal stiffener and triangle plate on corner B/C

This QA inspector performed Magnetic Particle Testing (MT) of approximately 15% and random Visual Testing (VT) of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT reports for this date. The members are identified as Tower Components. The weld designations reviewed are as follows.

NSTL3-3B/K-19

NSTL3-3C/K-22, 102

NSTL3-3D/K-24

NSTL3-3F/K-17, 95

NSTL3-3G/K-24, 113

NSTL3-3H/K-18, 94

NSTL3-3I/K-22, 113

NSTL3-3J/K-18

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Bay 10 South Tower Lift 3

This QA inspector performed Magnetic Particle Testing (MT) of approximately 15% and random Visual Testing (VT) of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT reports for this date. The members are identified as Tower Components. The weld designations reviewed are as follows.

SSTL3-1B/K-77, 78 (From 85.25 M ~ 99 M Bottom)

SSTL3-1B/K-4, 5

SSTL3-1C/K-4, 5, 104

SSTL3-1C/K-95 (30 mm MT linear indication observed, incident report)

SSTL3-1D/K-4, 5

SSTL3-1F/K-4, 5, 81, 82

SSTL3-1G/K-4

SSD1-FDSA3-1C/C-19, 20

SSD1-FCSA3-1C/C-1, 2

Bay 10 South Tower Lift 3

This QA inspector performed random Visual Testing (VT) of the area previously tested and accepted by ZPMC Quality Control personnel. The members are identified as Tower Components. The weld designations reviewed are as follows.

SSTL3-1K/K-16~21, 38~42

SSTL3-1C/K-96, 97

Bay 10

STRUT PLATE

SMAW welding of weld joint 57 located on ED1-A6003-4.

Welder is identified as 040491. ZPMC QC is identified as Mr. Chen Ying Xin.

The welding variables recorded by QC appeared to comply with WPS-B-T-4113-1.

SMAW welding of weld joint 18 located on ED1-A6003-4.

Welder is identified as 037779. ZPMC QC is identified as Mr. Chen Ying Xin.

The welding variables recorded by QC appeared to comply with WPS-B-T-2113.

SOUTH TOWER INTERIOR SPLICE PLATE

FCAW welding of weld joint 2A located on SSD1-SPSA3-56.

Welder is identified as 040345. ZPMC QC is identified as Mr. Li Ming.

The welding variables recorded by QC appeared to comply with WPS-B-T-2231-Tc-U5-F.

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FCAW welding of weld joint 1A located on SSD1-SPSA3-70.

Welder is identified as 053870. ZPMC QC is identified as Mr. Li Ming.

The welding variables recorded by QC appeared to comply with WPS-B-T-2231-Tc-U5-F.

FCAW welding of weld joint 2B located on SSD1-SPSA3-4.

Welder is identified as 048784. ZPMC QC is identified as Mr. Gong Liang Zhu.

The welding variables recorded by QC appeared to comply with WPS-B-T-2231-Tc-U5-F.

NORTH TOWER LIFT 3 A/B CORNER SEAM

FCAW welding of weld joint 83A located on NSTL3-3B/K.

Welder is identified as 040261. ZPMC QC is identified as Mr. Du Zhi Qun.

The welding variables recorded by QC appeared to comply with WPS-345-FCAW-2G-REPAIR.

During random verification Magnetic Particle Testing (MT) of South tower lift 3 C/D corner diagonal plate with skin plate, weld SSTL3-1C/K-95 located in the Tower Bay no.10, Caltrans Quality Assurance (QA) Inspector discovered a linear indication of approximately 30mm in length. This area had been previously tested and accepted by ZPMC NDT personnel. The attached photographs provide additional detail.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.





Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Jim Simonis - 134-7246-3441, who represents the Office of Structural Materials for your project.

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Gaikwad,Umesh **Inspected By:** Quality Assurance Inspector

Reviewed By: Clifford,William QA Reviewer